## R.HOE\&CO.



## NLW YORK <br> AND <br> LONDON

## R. HOE \& CO.

NEW YORK AND LONDON<br>BOSTON AND CHICAGO



Manufacturers of

## Circular Saws

and
Printing Machinery

## GOLD MEDAL

## Highest AWARD

## Universal Exposition, \$t. Louis-1904.

To R. Hoe Eo Co., New Iorl:.
Pursuant to the Rules and Resriations gozerning the System of Awards, formal public announcement is hercby made that a Gold Medal has been finally awarded you on your exhibit of Chisel-Tonth Saws in Group 65. A Midal and Diploma for this award will be issued liy the Exposition Company as soon as ready for deliwery.

DAVID R. FRANCIS, President of Superior Jury.

## LOUISIANA <br> PURCHASE EXPOSITION

I904

Copyright, 1905
by
R. HOE छृ CO.

> R. HOE \& CO.'S SAW CATALOGUE.

WE have been engaged since the year 1828 in the manufacture of saws of all kinds, having produced the first Solid Cast Steel Circular Saws ever made in this country, and later originated the famous Chisel-Tooth Saw, an invention that has been of the greatest benefit to the millman. No care or expense is spared to make our saws the most evenly tempered, the most accurately balanced, and the most perfectly finished obtainable.

Our facilities for manufacturing have been greatly enlarged and improved during the past few years, enabling us to make prompt shipments, and, with our long experience, to give an accuracy and thoroughness to our work not attainable elsewhere.

> R. HOE \& CO.,
> $504-520$ Grand Street, New York, U. S. A.

Also London, England.

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R. HOE & CO.'S SAIV CATALOGUE.
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## CHISEL-TOOTH SAWS.

O
UR Chisel-Tooth Saws, by reason of their superior mechanical construction and excellency of workmanship, are recognized as the standard the world over. About 50,000 are in successful operation, cutting every kind of timber, from pine to lignum-vitæ. No millman can afford to be without one. They require less power, make better lumber and produce it at less cost than any other saws manufactured, and are equally adapted to cutting the largest logs and edging the smallest boards.

## READY TO PUT ON MANDREL.

They are furnished ready to put on the mandrel.

## SIMPLICITY OF CONSTRUCTION.

The Bits, or teeth, are held firmly in the saw plate by the shanks, and are easily inserted and kept in place without the use of rivets or keys. The round socket in the plate has beveled edges, and the Bits and Shanks are grooved to match. This prevents side play, keeps them absolutely central with the plate, and as firm as the teeth of a solid saw. This arrangement is so simple and strong that, although there have been many efforts to improve upon it, not one has been successful. The bits are so easily changed that the saw need never be taken from the mandrel, and, after the insertion of a new set, is in better condition than an expert sawyer could possibly put a solid saw. Each Bit may be pointed up with a file from one to twenty times.

## MATERIAL.

Our saws are manufactured from the best grade of steel, and our Bits and Shanks are drop forgings, tempered in the same manner as the most delicate surgical instruments, and machined mathematically correct.

## ECONOMY.

The Bits are very stiff and do not break when cutting knots. When by accident the saw runs upon iron or stone, the damage is

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very slight compared to that occasioned a solid-tooth saw under like circumstances. A large, solid, circular saw in cutting a nail or stone may not injure more than half a dozen teeth, but this means that it must be cut down, and re-toothed. Under the most favorable circumstances the cost would not be less than $\$ 5.00$. The Chisel-Tooth Saw, on the other hand, would require at most only half a dozen bits-say, 15 cents. The danger of breaking the plate of a Chisel-Tooth Saw is very slight, whereas a solid saw is often torn to pieces.

## FROZEN TIMBER.

No other saw has ever been manufactured that equals the "Hoe Chisel-Tooth" in cutting frozen timber. It is the only saw that will stand up in hard-frozen lumber.

## A POOR ARTICLE IS DEAR AT ANY PRICE.

The success of our Chisel-Tooth Saws has brought into the market a number of worthless imitations, poorly made and of cheap material, which last but a short time and are a constant source of annoyance and expense for repairs. In some of them the shape of our teeth has been closely copied, and the saw made to resemble ours as nearly as possible, but it is only a resemblance, as many a millman has found to his loss, after being tempted to give one of these inferior tools a trial.

In some cases manufacturers and dealers have represented their cheap imitations as being "Hoe Saws." We are the originators of inserted-tooth saws, and the genuine "Hoe Saw" is made only by us, in New York. Any one offering "Hoe Saws," or BITS or SHANKS that are not made by us here, or a saw claimed to be "AS GOOD AS THE HOE SAW," is endeavoring to enrich himself at the millman's expense and on our reputation.

## SHIPMENT.

To facilitate handling and avoid damage in transportation, the Bits are not inserted in the saw at our works, but are carefully packed with extra Shanks and the Wrench in a small wooden box, which is firmly attached to the large case containing the saw. Unless otherwise directed, saws will always be shipped by freight.

## R. HOE \& COI'S SAW CATALOGUE.

## GUARANTEE.

All our Saws, Bits and Shanks are warranted perfect in material and workmanship, and free from flaws and defects.

We will gladly replace or repair, free of charge, anything that is found unsatisfactory, provided it is returned to us within thirty days, and if, upon investigation, we are satisfied the damage or breakage has not been caused by ill-usage or abuse.

## TERMS.

Our terms, to any one who has a satisfactory rating in one of the recognized mercantile agency books, are thirty days. We also allow thirty days' time to any one giving satisfactory references from his bank or some reliable business house.

Any one desiring goods shipped C. O. D. must remit in advance sufficient to cover expressage both ways.

We are not responsible for goods sent by mail unless registered. This costs eight (8) cents extra.

All prices are F. O. B. New York. Boxing extra.
R. HOE \& CO.'S SAW CATALOGUE.

## DIRECTIONS FOR HANGING AND RUNNING CHISEL-TOOTH SAWS.

## MILL.

Be sure that the mill is in good running order and the tracks level and parallel.

## MANDREL.

The mandrel must be level; the journals must fill the boxes and should be so constructed that there will be no movement endwise when the mandrel is running. The mandrel must fill the eye of the saw, but enter freely. The pins in the collar must have a fair bearing. Sometimes, when driving them in, a burr is thrown up. This tends to throw the saw over to one side if not carefully filed off.

## COLLARS.

The loose collar must be perfectly flat and true, and the fast collar slightly concave. If, after the collars are screwed tight, the face or $\log$ side of the saw is not flat, but bulges out, or is crowning, a paper circle about three-fourths of an inch wide, and the same diameter as the collar, should be placed between the fast collar and the saw; and a small paper circle which just fits the mandrel should be cut out and placed between the loose collar and the saw. If the saw dishes on the $\log$ side, the paper circles should be reversed, the larger one going next the loose collar, and the smaller one next the fast collar.

The paper rings should be dipped in oil, and as many used as necessary in order to make the saw stand straight. If paper does not remedy the defect, the mill should be thoroughly examined, for, if the saw stood plumb before the collars were tightened, the flaw is in the mill, mandrel or collars.

## SPREAD WHEEL.

The spread wheel should be set flush with the face of the saw and about half an inch behind the teeth.

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## LEAD.

The mandrel must be adjusted so as to give the saw a little lead into the log; the exact amount depends largely on the saw, the timber, and the shape and condition of the teeth. A rotary saw about 48 inches in diameter should have a lead from back to front of about one thirty-second of an inch. The measurement can easily be taken from the head block. If the saw heats near the centre, it should be led a little further into the log. Heating at the rim shows that there is too much lead.

The only proper way to change the line or direction of the saw is by slewing the mandrel. For this purpose the bolt holes in the boxes of most mandrels are slotted, and it is only necessary to loosen the bolts and move the boxes one way or the other by a few light blows of a hammer. If the saw has a tendency to lead into the log, the teeth may be beveled on the back on the log side; and if it tends to lead out of the log, they may be beveled on the board side; but it is difficult to do this properly and we do not recommend it. The teeth should always be square.

## GUIDE PINS.

Adjust the guide pins clear of the teeth and just touching the plate. This should be done while the saw is in motion, care being taken that the pins do not push the saw to one side, or rub hard enough to cause friction and heat it.

## POWER.

Very often a millman tries to run a saw with a speed and feed too high for the power, which, of course, stops it. When this happens, the speed will have to be reduced, and the saw returned to the shop and rehammered for the new speed.

## SPEED.

In hammering a saw it is necessary to know the speed at which it is to be operated. No saw will run properly unless hammered for the correct speed. This is most important, but is very often overlooked by the millman when ordering. The best way to ascertain the speed of a saw is to use a speed indicator on

## R. HOE \& CO.'S SAIV CATALOGUE.

the mandrel; but, if this is impossible, the following simple rule will be a help: Multiply the number of revolutions the engine makes per minute by the diameter in inches of the driving pulley, and divide by the diameter in inches of the small pulley on the saw mandrel. This gives the number of revolutions the saw runs per minute.

The speed of a saw in and out of the cut should be as nearly as possible the same, and certainly should not vary more than from 50 to 100 revolutions.

## TABLE OF SPEED FOR CIRCULAR SAWS.

The following is a table of speeds for all circular saws, based on a velocity of 9,000 feet per minute at the rim. All our saws will be hammered for these regular speeds unless a special speed is given.


## FEED.

A knowledge of the feed to be used is most essential, because the greater the feed, the greater should be the number of teeth. Each tooth will only do a certain amount of work. When the work is increased, the number of teeth must be increased. It follows also that, the more feed desired, the greater must be the power; or, in other words, the larger the engine you must have.

If no hand or speed is given, a saw will be hammered for even hand and regular speed.

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## HAND.

Mills are made either right or left handed, and saws must be hammered to correspond. When facing the saw as it cuts toward you, if the log passes on the right-hand side it is a righthand saw; if the log passes on the left-hand side it is a left-hand saw. All our saws are marked near the eye: "Log Side," and if, when placed on the mandrel, the log does not pass on that side of the saw, the saw should be returned to the shop and rehammered.


CUT OF A "LEFT HAND" CHISEL-TOOTH CIRCULAR SAW AT WORK.


CUT OF A "RIGHT HAND" CHISEL-TOOTH CIRCULAR SAW AT WORK.

## INSERTING AND REMOVING CHISEL=BITS AND SHANKS.

Before inserting bits and shanks, the sockets of the saw should be well oiled and all dirt carefully removed. Do not use force; this means that the wrench should not be hammered or otherwise pounded, or the bits or shanks pounded in order to force them into place. It is sometimes difficult to remove shanks from saws that have been cutting gummy lumber, and in trying to start them the wrench is sometimes broken. To prevent this, place a blunt chisel or some similar tool at the heel of the shank and strike it a light blow with a hammer. This will start the

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shank and bit sufficiently so that they can be removed without difficulty. As the cutting points of all our bits are carefully gauged, they make smoother lumber than the old-style solid saw. If, however, especially smooth work is desired, any bits that are found to be projecting may be relieved with a file. See pages 33 and 34 for suitable gauge and file.

## TO SHARPEN BITS.

A set of bits, when once inserted and adjusted, should remain in place until worn out. To sharpen, file on the under side or face, as explained in the accompanying diagram.

A little filing is all that is required. Be careful to keep the cutting edge straight and at right angles to the saw. After a bit
 has been sharpened several times, it should be relieved or beveled on the sides, so as to keep the corners straight.

## A FEW SUGGESTIONS WHEN SAWING FROZEN TIMBER.

Two things must be carefully guarded against when sawing frozen timber:

1st. The small fibres, if not perfectly severed from the log, are apt to rub against the saw and cause it to heat.
2 nd. The fine dust passing between the saw and the $\log$ often freezes to the log, and so forces the saw out of the cut.
To overcome the first, keep the corners of the bits sharp and carefully beveled or relieved on the sides. A side file which leaves flat places on the sides of the bits should never be used. To avoid dust freezing to the log, insert new shanks with plenty of swage.

For winter sawing, always use a sharp beveled bit with a narrower cutting point than that used in summer.

When sawing some kinds of frozen timber a "flush" or "straight" shank can be used. This allows of cutting less kerf, as for instance, a $1 / 4$ inch bit in an 8 gauge saw.

## R. HOE \& CO.'S SAW CATALOGUE.



Section of Chisel-Tonth Saw showing how the Bits and Shanks are inserted in the plate.


BIT.


SHANK.

Note the manner in which bit and shank are held in place. The V-shaped edge of the socket holds bit and shank absolutely central with plate.

If after long use the sockets are found to be worn so that the shanks fit loosely, we are prepared to furnish shanks larger in the circle to allow for this wear.

Those 1-64 inch larger than regular are called Second Size.
Those 1-32 inch larger than regular are called Third Size.
It is important that shanks fit tightly at all times.
To fill an order for Bits we must know the size, the gauge and the width of the cutting-point desired.

To fill an order for Shanks we must know the catalogue number, also whether regular, second size or third size; the gauge, and, in the case of No. 2 Shanks, whether old or new style; and in the case of No. $21 / 2$, whether long or short.

## R. HOE \& CO.'S SAW CATALOGUE.

## No. 1 Chisel-Tooth Saw



Full-sized cut of No. 1 Chisel Bit and Shank, used for sawing Shingles, Laths or Barrel Staves, and in general use for Bench Work and Re-Sawing.

|  |  |  | $\begin{aligned} & \text { o } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | PRICE. |  | $\begin{aligned} & 5 \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |  | PRICE. |  | $\begin{aligned} & 5 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 15 | 15 | 14 | \$19.00 | 100 |  | 26 | 9 | 15 | 48 | \$71.00 | 200 | 2 |
| 10 | 15 | 15 | 18 | 22.00 | 100 | 2 | 28 |  | 15 | 52 | 75.00 | 200 |  |
| 12 | 15 | 15 | 22 | 25.00 | 100 | 2 | 30 | 8 | 15 | 56 | 82.00 | 200 | 2 |
| 14 | 15 | 15 | 26 | 29.00 | 100 | 2 | 32 | 8 | 15 | 60 | 92.00 | 300 | 2 |
| 16 | 14 | 15 | 30 | 33.00 | 100 | 2 | 34 | 8 | 15 | 64 | 97.00 | 300 | 2 |
| 18 | 11 | 15 | 34 | 42.00 | 100 |  | 36 | 7 | 15 | 68 | 110.00 | 300 | 2 |
| 20 | 10 | 15 | 38 | 48.00 | 100 | 2 | 38 | 7 | 15 | 72 | 119.00 | 300 | 2 |
| 22 | 10 | 15 | 42 | 57.00 | 200 | 2 | 40 | 7 | 15 | 76 | 129.00 | 300 | 2 |
| 24 |  | 15 | 46 | 65.00 | 200 |  |  |  |  |  |  |  |  |
| No.CHISEL BITS |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { TELEGRAPH } \\ & \text { CODE } \end{aligned}$ |  |
|  |  |  |  |  |  |
|  |  |  |  | , |  |
|  |  |  |  | Price, $2^{1 / 2}$ cents each. |  |  |

No. 1 SHANKS 15 gauge, New Style, regular............. Rob.
Price, 20 cents each.

We usually put as many teeth as possible in a No. 1 saw, but will make with any number desired. When saw is fitted to flange, there will be an extra charge, depending upon the size and style of flange. A Wrench is included with each Saw.

SEND FOR DISCOUNTS.

## R. HOE \& CO.'S SAW CATALOGUE.

No. 2 Chisel-Tooth Saws


Full-sized cut of Chisel Bit and Old-Style Shank for No. 2 ChiselTooth Saw.


Full-sized cut of Chisel Bit and New-Style Shank for No. 2 Chisel-Tooth Saw.

THIS SIZE IS USED IN BOLTING, GANG, EDGER AND BENCH SAWS.

|  |  |  | PRICE. |  |  |  | Diameter in Inches. |  |  | PRICE. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 10 | 10 | \$15.50 | 10 | 50 | 2 | 26 | 9 | 24 | \$50.00 | 28 | 100 | 2 |
| 12 | 10 | 12 | 19.50 | 12 | 50 | 2 | 28 | 9 | 26 | 54.00 | 30 | 100 | 2 |
| 14 | 10 | 14 | 23.00 | 14 | 50 | 2 | 30 | 9 | 28 | 58.00 | 32 | 100 | 2 |
| 16 | 10 | 16 | 27.00 | 16 | 50 | 2 | 32 | 8 | 30 | 65.00 | 34 | 150 | 2 |
| 18 | 10 | 18 | 31.00 | 20 | 50 | 2 | 34 | 8 | 32 | 70.00 | 36 | 150 | 2 |
| 20 | 9 | 20 | 36.00 | 22 | 50 | 2 | 36 | 8 | 34 | 75.00 | 38 | 150 | 2 |
| 22 | 9 | 20 | 42.00 | 24 | 100 | 2 | 38 | 8 | 36 | 80.00 | 42 | 150 | 2 |
| 24 | 9 | 22 | 46.00 | 26 | 100 | 2 | 40 | 8 | 38 | 86.00 | 44 | 150 | 2 |

The gauges shown are standard. We are, however, prepared to make No. 2 Saws as thin as 13 gauge or as thick as 7 gauge.

A small additional charge for Saws beveled more than 2 gauges.
A Wrench is included with each Saw.
Prices for No. 2 Saws 42 inches in diameter and larger on application.
SEND FOR DISCOUNTS.
R. HOE \& CO.'S SAW CATALOGUE

## No. 2 CHISEL BITS

TELEGRAPH


No. 2 SHANKS
TELEGRAPH CODE


Price, 25 cents each.

## R. HOE \& CO.'S SAW CATALOGU゙E.

No. 2½ Chisel-Tooth Saw


Full-sized cut of No. $21 / 2$ Chisel Bit and Short Shank, used in Saws 42 inches in diameter and over.

Full-sized cut of No. $21 / 2$ Chisel Bit and Long Shank, used in Saws 40 inches in diameter and less.

|  |  | PRICE. |  |  |  |  |  | PRICE. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 | 9 | \$25.00 | 12 | 50 | 2 | 44 | 8 | \$130.00 | 50 | 200 | 3 |
| 14 | 9 | 28.00 | 14 | 50 | 2 | 46 | 8 | 140.00 | 52 | 200 | 3 |
| 16 | 9 | 32.00 | 16 | 50 | 2 | 48 | 8 | 150.00 | 54 | 200 | 3 |
| 18 | 9 | 36.00 | 20 | 50 | 2 | 50 | 8 | 164.00 | 56 | 200 | 3 |
| 20 | 9 | 40.00 | 22 | 50 | 2 | 52 | 7 | 182.00 | 60 | 300 | 3 |
| 22 | 9 | 48.00 | 24 | 100 | 2 | 54 | 7 | 204.00 | 62 | 300 | 3 |
| 24 | 9 | 52.00 | 26 | 100 | 2 | 56 | 7 | 226.00 | 64 | 300 | 3 |
| 26 | 9 | 58.00 | 28 | 100 | 2 | 58 | 7 | 248.00 | 66 | 300 | 3 |
| 28 | 9 | 64.00 | 30 | 100 | 2 | 60 | 7 | 272.00 | 70 | 300 | 3 |
| 30 | 9 | 70.00 | 32 | 100 | 2 | 62 | 6 | 296.00 | 74 | 300 | 3 |
| 32 | 8 | 78.00 | 34 | 150 | 2 | 64 | 6 | 326.00 | 76 | 300 | 3 |
| 34 | 8 | 84.00 | 36 | 150 | 2 | 66 | 6 | 356.00 | 78 | 300 | 3 |
| 36 | 8 | 92.00 | 38 | 150 | 2 | 68 | 6 | 390.00 | 80 | 300 | 3 |
| 38 | 8 | 101.00 | 42 | 150 | 2 | 70 | 6 | 430.00 | 82 | 300 | 3 |
| 40 | 8 | 110.00 | 44 | 150 | 2 | 72 | 6 | 472.00 | 84 | 300 | 3 |
| 42 | 8 | 120.00 | 46 | 200 | 3 |  |  |  |  |  |  |

The gauges shown are standard. We are, however, prepared to make No. $21 / 2$ Saws as thin as 10 gauge or as thick as 6 gauge. We usually put in as many teeth as possible in a No. $21 / 2$ Saw, but will make with any number desired.

A small additional charge for saws beveled more than 2 gauges.
A Wrench is included with each Saw.
SEND FOR DISCOUNTS.

## R. HOE \& CO.'S SAW CATALOGUE

## No. 2½ CHISEL BITS



No. 2 $1 / 2$ SHANKS


## HOE \& CO.'S SAW CATALOGUE.

No. 3 Chisel Tooth Saw


|  |  |  | PRICE. |  |  |  |  |  |  | PRICE. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16 | 10 | 12 | \$27.00 | 12 | 50 | 2 | 46 | 8 | 32 | \$110.00 | 40 | 200 | 3 |
| 18 | 10 | 14 | 30.00 | 14 | 50 | 2 | 48 | 8 | 34 | 120.00 | 42 | 200 | 3 |
| 20 | 9 | 14 | 34.00 | 16 | 50 | 2 | 50 | 8 | 36 | 134.00 | 44 | 200 | 3 |
| 22 | 9 | 16 | 38.50 | 18 | 100 | 2 | 52 | 7 | 38 | 156.00 | 44 | 300 | 3 |
| 24 | 9 | 18 | 42.00 | 18 | 100 | 2 | 54 | 7 | 40 | 174.00 | 46 | 300 | 3 |
| 26 | 9 | 18 | 46.00 | 20 | 100 | 2 | 56 | 7 | 42 | 194.00 | 48 | 300 | 3 |
| 28 | 9 | 18 | 50.00 | 22 | 100 | 2 | 58 | 7 | 44 | 212.00 | 50 | 300 | 3 |
| 30 | 9 | 20 | 54.00 | 24 | 100 | 2 | 60 | 7 | 46 | 230.00 | 52 | 300 |  |
| 32 | 8 | 22 | 61.00 | 26 | 150 | 2 | 62 | 6 | 48 | 260.00 | 54 | 300 | 3 |
| 34 | 8 | 22 | 66.00 | 28 | 150 | 2 | 64 | 6 | 48 | 290.00 | 56 | 300 | 3 |
| 36 | 8 | 24 | 72.00 | 30 | 150 | 2 | 66 | 6 | 50 | 320.00 | 58 | 300 | 3 |
| 38 | 8 | 24 | 78.00 | 32 | 150 | 2 | 68 | 6 | 52 | 350.00 | 60 | 300 | 3 |
| 40 | 8 | 26 | 84.00 | 34 | 150 | 2 | 70 | 6 | 54 | 380.00 | 62 | 300 | 3 |
| 42 | 8 | 28 | 94.00 | 36 | 200 | 3 | 72 | 6 | 56 | 420.00 | 64 | 300 | 3 |
| 44 | 8 | 30 | 102.00 | 38 | 200 | 3 |  |  |  |  |  |  |  |

The gauges shown are standard. We are, however, prepared to make No. 3 Saws as thin as 11 gauge or as thick as 6 gauge, but cannot guarantee more than the workmanship and material of Saws 48 inches in diameter and larger, if thinner than 10 gauge.

A small additional charge for Saws beveled more than 2 gauges.
A Wrench is included with each Saw.
SEND FOR DISCOUNTS.

## R. HOE \& CO.'S SAIV CATALOGUE.

## No. 3 CHISEL BITS



## Price, 3 cents each.

## No. 3 SHANKS



Price, 30 cents each.

No. 4 Chisel-Tooth Saw

The great throat
room of this size makes it most suitable for cutting soft timber in Southern Countries, although it may be used for sawing hard wood.

|  |  |  | PRICE. |  | $\begin{aligned} & 5 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |  | PRICE. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 9 | 12 | \$38.50 | 14 | 100 | 2 | 48 | 8 | 30 | \$120.00 | 36 | 200 | 3 |
| 2 | 9 | 14 | 42.00 | 16 | 100 | 2 | 50 | 8 | 32 | 134.00 | 38 | 200 | 3 |
| 26 | 9 | 14 | 46.00 | 16 | 100 | 2 | 52 | 7 | 34 | 156.00 | 40 | 300 | 3 |
| 28 | 9 | 16 | 50.00 | 18 | 100 | 2 | 54 | - | 36 | 174.00 | 42 | 300 | 3 |
| 30 | 9 | 16 | 54.00 | 20 | 100 | 2 | 56 | 7 | 36 | 194.00 | 42 | 300 | 3 |
| 32 | 8 | 18 | 61.00 | 22 | 150 | 2 | 58 | 6 | 38 | 212.00 | 44 | 300 | 3 |
| 34 | 8 | 20 | 66.00 | 24 | 150 | 2 | 60 | - | 40 | 230.00 | 46 | 300 | 3 |
| 36 | 8 | 20 | 72.00 | 26 | 150 | 2 | 62 | 6 | 40 | 260.00 | 48 | 300 | 3 |
| 38 | 8 | 22 | 78.00 | 28 | 150 | 2 | 64 | 6 | 42 | 290.00 | 50 | 300 | 3 |
| 40 | 8 | 24 | 84.00 | 30 | 150 | 2 | 66 | 6 | 44 | 320.00 | 52 | 300 | 3 |
| 42 | 8 | 26 | 94.00 | 32 | 200 | 3 | 68 | 6 | 44 | 350.00 | 54 | 300 |  |
| 44 | 8 | 26 | 102.00 | 34 | 200 | 3 | 70 | 6 | 46 | 380.00 | 54 | 300 | 3 |
| 46 | 8 | 28 | 110.00 | 36 | 200 | 3 | 72 | 6 | 48 | 420.00 | 56 | 300 | 3 |

The gauges shown are standard. We are, however, prepared to make No. 4 Saws as thin as 9 gauge or as thick as 6 gauge.

A Wrench is included with each Saw.
SEND FOR DISCOUNTS.

## R. HOE \& CO.'S SAW CATALOGUE.

No. 4 CHISEL BITS


## Price, $3^{11 / 2}$ cents each.

## No. 4 SHANKS



Price, 35 cents each.

Our signature is on every box of Bits and our name etched on every Saw. The genuine Hoe Saws, Bits and Shanks are made only by us in New York, and are fully guaranteed.

R．HOE \＆CO．＇S SAW CATALOGUE．

This size is unexcelled for use in the Far West， cutting heavy timber， such as＂Red Wood，＂where the saw is buried in the log．

# Chisel－Tooth Saw 

Full－sized cut of Chisel Bit and Shank for No． 5 Chisel－Tooth Saw．

|  |  |  | PRICE． |  |  |  |  |  |  | PRICE． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 8 | 10 | \＄38．50 | 12 | 100 | 2 | 48 | 7 | 26 | \＄120．00 | 28 | 200 | 3 |
| 24 | 8 | 12 | 42.00 | 14 | 100 | 2 | 50 | 7 | 28 | 134.00 | 30 | 200 | 3 |
| 26 | 8 | 12 | 46.00 | 14 | 100 | 2 | 52 | 6 | 30 | 156.00 | 32 | 300 | 3 |
| 28 | 8 | 14 | 50.00 | 14 | 100 | 2 | 54 | 6 | 30 | 174.00 | 32 | 300 | 3 |
| 30 | 8 | 14 | 54.00 | 18 | 100 | 2 | 56 | 6 | 32 | 194.00 | 34 | 300 | 3 |
| 32 | 8 | 16 | 61.00 | 20 | 150 | 2 | 58 | 6 | 34 | 212.00 | 36 | 300 | 3 |
| 34 | 8 | 18 | 66.00 | 20 | 150 | 2 | 60 | 6 | 34 | 230.00 | 36 | 300 | 3 |
| 36 | 8 | 18 | 72.00 | 22 | 150 | 2 | 62 |  | 36 | 260.00 | 38 | 300 | 3 |
| 38 | 8 | 20 | 78.00 | 22 | 150 | 2 | 64 | 5 | 36 | 290.00 | 38 | 300 | 3 |
| 40 | 7 | 20 | 84.00 | 24 | 150 | 2 | 66 | 5 | 38 | 320.00 | 40 | 300 |  |
| 42 | 7 | 22 | 94.00 | 26 | 200 | 3 | 68 | 5 | 38 | 350.00 | 40 | 300 | 3 |
| 44 | 7 | 24 | 102.00 | 26 | 200 | 3 | 70 | 5 | 42 | 380.00 | 44 | 300 | 3 |
| 46 | 7 | 24 | 110.00 | 28 | 200 | 3 | 72 | 5 | 42 | 420.00 | 44 | 300 | 3 |

The gauges shown are standard．We are，however，prepared to make No． 5 Saws as thin as 8 gauge or as thick as 5 gauge．

A Wrench is included with each Saw．
SEND FOR DISCCUNTS．

```
R. HOE & CO.'S SAW CATALOGUE.
```

No. 5 CHISEL-BITS


Price, 4 cents each.

## No. 5 SHANKS

|  |  | $\underset{\substack{\text { telegraph } \\ \text { code }}}{\text { and }}$ |
| :---: | :---: | :---: |
| 9 gauge, | regular. | Rasp. |
| 9 " | 2nd size. | Rasper. |
| 9 " | 3rd size. | . .Raspatory |
| 8 " | regular. | Rational. |
| 8 " | 2nd size. | Rattan. |
| 8 " | 3rd size . | . Rattle. |
| 7 " | regular. | Raven. |
| 7 " | 2nd size. | . Ravish. |
| 7 " | 3rd size.. | Rawbone |
| 6 " | regular. | Rawhide. |
| 6 " | 2nd size. | . Raillery. |
| 6 " | 3rd size.. | Radix. |
| 5 " | regular.. | Raddle. |

## Price, 50 cents each.

Large stock of Chisel-Bits and Shanks always on hand. Buy the genuine HOE Chisel-Bits and Shanks. Beware of imitations. Our Chisel-Bits and Shanks are dropped forgings, machined mathematically correct, and of perfect temper. Chisel-Bits are sharpened ready for use when they leave our works.

## Chisel-Tooth Rift Saws



| Diameter in Inches. | Gauge. | Four Arm <br> With 4 No. 3 Teeth. | Six Arm <br> With 6 No. 3 Teeth. |
| :---: | :---: | :---: | :---: |
| 14 | 8 | \$15.00 | \$18.00 |
| 16 | 8 | 17.00 | 20.00 |
| 18 | 8 | 19.00 | 22.00 |
| 20 | 8 | 21.00 | 24.00 |
| 22 | 8 | 23.00 | 26.00 |
| 24 | 8 | 26.00 | 29.00 |

Rift Saws are also made with No. 2, No. $21 / 2$ or No. 4 Teeth, and any gauge or number of arms desired. Prices on application.

Chisel-Tooth Saws, from 6 to 12 inches in diameter, for cutting grooves any width of cutting point desired. Prices on application.

Our Chisel-Tooth Edger Saw is recommended by all the leading manufacturers of Edging Machines. It is unsurpassed for the purpose.

## SEND FOR DISCOUNTS.

## Chisel-Tooth Stone Saw



TELEGRAPH
CODE
Bits for $1 / 4$-inch Saw, $\frac{7}{16}$-inch width of cutting point................ . Masked.

Bits for $3 / 8$-inch Saw, $5 / 8$-inch width of cutting point............. . . . . Mastiff.
Shanks for $3 / 8$-inch Saw. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Mastodo
The most successful inserted-tooth stone saw manufactured.
No other stone saw approaches it in lasting qualities. The bits are forged from the best imported tool steel and are diamond pointed, thereby insuring a smonth cut and sharp corners.

## R. HOE \& CO.'S SAW CATALOGUE.

## REPAIRING CHISEL=TOOTH SAWS AND MAKING OVER SOLID SAWS INTO CHISEL=TOOTH.

We are exceptionally well equipped to repair Chisel-Tooth Saws, and are able to do the work quickly and thoroughly.

If, through constant wear, a saw becomes weak and limber, the sockets out of round, and the teeth show a tendency to break or fall out, send it to us and we will make it run like new.

When sending saws to be repaired, be careful to mark your name, as well as ours, on the box, for the purpose of identification. If desired, the saw will be carefully examined and an estimate submitted before the work is commenced.

Always send the old shanks with the saw, unless you desire us to furnish a new set. When a saw is being hammered the shanks must be inserted.

We make a specialty of cutting down solid and inserted tooth saws of other makes and inserting our teeth. This reduces the diameter from two to five inches. The old teeth must be entirely cut away, and the reduction in diameter depends upon their depth.

We also make a specialty of welding on the shoulders of Inserted-Tooth Saws that have been broken off by accidentally running against iron or stone. We can weld them, making them practically as good as new, provided they are not broken too deep into the plate. If they are broken too deep to weld, we can often make a satisfactory job by inserting a piece of steel and boring a new socket.

All breakage in repairs is at the risk of the owner. We use every effort and care possible, but some plates are brittle and difficult to handle, and occasionally one cracks without warning.

After a saw has passed through a fire, if there is any life left in the plate, it can be repaired and made almost, if not quite, as good as new. As the work on burned saws varies, we cannot quote prices without seeing the saw.

## Repairing Chisel－Tooth Saws and Making Over <br> Solid Saws into Chisel－Tooth Saws

|  | Price for Cutting Down and Inserting No． 2 Teeth． | Price for Cutting Down and Inserting No． $21 / 2$ Teeth． | Price for Cutting Down and Inserting Nos． 3,4 and 5 Teeth． |  |  | Price for Hammering Only． | Price for Re－ Grinding Gauge． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 |  |  |  | 50 | 2 | \＄0．60 | \＄0．70 |
| 10 | \＄ 12.00 |  |  | 50 | 2 | ． 80 | ． 80 |
| 12 | 14.00 | \＄19．00 |  | 50 | 2 | 1.00 | ． 90 |
| 14 | 17.00 | 22.00 |  | 50 | 2 | 1.20 | 1.05 |
| 16 | 20.00 | 25.00 | \＄20．00 | 50 | 2 | 1.40 | 1.20 |
| 18 | 23.00 | 28.00 | 22.00 | 50 | 2 | 1.70 | 1.40 |
| 20 | 26.00 | 30.00 | 24.00 | 50 | 2 | 2.00 | 1.60 |
| 22 | 30.00 | 36.00 | 27.00 | 100 | 2 | 2.30 | 1.80 |
| 24 | 34.00 | 40.00 | 30.00 | 100 | 2 | 2.60 | 2.10 |
| 26 | 38.00 | 46.00 | 34.00 | 100 | 2 | 2.90 | 2.40 |
| 28 | 42.00 | 52.00 | 38.00 | 100 | 2 | 3.20 | 2.70 |
| 30 | 44.00 | 56.00 | 42.00 | 100 | 2 | 3.60 | 3.10 |
| 32 | 49.00 | 62.00 | 46.00 | 150 | 2 | 4.00 | 3.50 |
| 34 | 53.00 | 67.00 | 50.00 | 150 | 2 | 4.40 | 3.90 |
| 36 | 57.00 | 74.00 | 54.00 | 150 | 2 | 4.90 | 4.30 |
| 38 | 61.00 | 82.00 | 58.00 | 150 | 2 | 5.60 | 4.70 |
| 40 | 65.00 | 88.00 | 62.00 | 150 | 2 | 6.40 | 5.20 |
| 42 |  | 94.00 | 68.00 | 200 | 3 | 7.20 | 5.70 |
| 44 | ． | 100.00 | 72.00 | 200 | 3 | 8.00 | 6.20 |
| 46 | ． | 106.00 | 76.00 | 200 | 3 | 9.00 | 6.70 |
| 48 |  | 109.00 | 80.00 | 200 | 3 | 10.00 | 7.20 |
| 50 | － | 114.00 | 86.00 | 200 | 3 | 11.00 | 7.60 |
| 52 |  | 126.00 | 100.00 | 300 | 3 | 12.25 | 8.00 |
| 54 |  | 142.00 | 110.00 | 300 | 3 | 13.50 | 8.40 |
| 56 |  | 150.00 | 120.00 | 300 | 3 | 14.75 | 8.80 |
| 58 |  | 162.00 | 130.00 | 300 | 3 | 16.00 | 9.20 |
| 60 |  | 176.00 | 140.00 | 300 | 3 | 17.25 | 9.60 |
| 62 |  | 188.00 | 152.00 | 300 | 3 | 18.50 | 10.00 |
| 64 |  | 206.00 | 170.00 | 300 | 3 | 19.75 | 10.50 |
| 66 |  | 231.00 | 195.00 | 300 | 3 | 21.00 | 11.00 |
| 68 | － | 255.00 | 215.00 | 300 | 3 | 22.75 | 11.50 |

The above prices are based on the diameters the saws will be when finished， not on their original diameters．

No extra charge for grinding cut－down saws one gauge．
A cut－down saw，when finished，is highly polished，and，if the plate is perfect， makes practically a new saw．

When re－grinding，add price for hammering．
All breakage at risk of owner．

## Solid Saws



When ordering solid saws, please state style of teeth desired, and give the sample number, as shown on accompanying cut.

An Order Blank is attached to the last page of the catalogue.

## Solid Saws

| $\begin{aligned} & \text { Diameter } \\ & \text { in } \\ & \text { Inches. } \end{aligned}$ | Gauge. | PRICE. | Cross Cuts, Extra for Setting and Sharpening. | Rips, Extra for Setting and Sharpening | Extra, per Gauge. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 18 | -. | \$0.65 | \$0.30 | \$0.10 |
| 8 | 18 | -. | . 70 | . 35 | . 10 |
| 10 | 16 |  | . 80 | . 40 | . 13 |
| 12 | 15 | \$5.00 | - . 90 | . 45 | . 17 |
| 14 | 15 | 5.75 | 1.00 | . 50 | . 21 |
| 16 | 14 | 6.50 | 1.10 | . 60 | . 25 |
| 18 | 13 | 7.50 | 1.20 | . 70 | . 30 |
| 20 | 13 | 9.00 | 1.30 | . 80 | . 35 |
| 22 | 12 | 11.00 | 1.40 | . 90 | . 45 |
| 24 | 11 | 13.00 | 1.50 | 1.00 | . 55 |
| 26 | 11 | 15.00 | 1.60 | 1.10 | . 65 |
| 28 | 10 | 17.00 | 1.80 | 1.20 | . 80 |
| 30 | 10 | 19.00 | 2.00 | 1.30 | . 90 |
| 32 | 10 | 22.00 | 2.20 | 1.40 | 1.00 |
| 34 | 9 | 25.00 | 2.40 | 1.60 | 1.20 |
| 36 | 9 | 28.00 | 2.60 | 1.80 | 1.40 |
| 38 | 9 | 31.00 | 2.80 | 2.00 | 1.75 |
| 40 | 9 | 36.00 | 3.20 | 2.20 | 2.00 |
| 42 | 8 | 42.00 | 3.60 | 2.50 | 2.50 |
| 44 | 8 | 50.00 | 3.90 | 2.80 | 3.00 |
| 46 | 8 | 60.00 | 4.20 | 3.10 | 3.50 |
| 48 | 8 | 70.00 | 4.50 | 3.40 | 4.00 |
| 50 | 7 | 80.00 | 4.80 | 3.70 | 4.50 |
| 52 | 7 | 90.00 | 5.10 | 4.00 | 5.00 |
| 54 | 7 | 100.00 | 5.40 | 4.30 | 6.00 |
| 56 | 7 | 115.00 | 5.70 | 4.60 | 7.00 |
| 58 | 7 | 130.00 | 6.00 | 4.90 | 8.00 |
| 60 | 6 | 145.00 | 6.30 | 5.20 | 9.00 |
| 62 | 6 | 160.00 | 6.60 | 5.50 | 10.00 |
| 64 | 6 | 180.00 | 6.90 | 5.80 | 12.00 |
| 66 | 6 | 200.00 | 7.20 | 6.10 | 15.00 |
| 68 | 5 | 225.00 | 7.50 | 6.40 | 18.00 |
| 70 | 5 | 255.00 | 7.80 | 6.70 | 21.00 |
| 72 | 5 | 290.00 | 8.00 | 7.00 | 24.00 |
| 74 | 5 | 330.00 | 8.00 | 7.30 | 29.00 |
| 76 | 5 | 375.00 | 8.00 | 7.60 | 34.00 |

No extra charge for beveling one gauge. A slight additional charge is made for beveling more than one gauge.

No extra charge for saws one gauge heavier than list.
A slight additional charge for saws 24 inches and less when made more than one gauge thinner than list.

Saws 48 inches and larger, when made thinner than 10 gauge, are not guaranteed, and there is an extra charge.

## Solid Shingle Saws



RIGHT-HAND.


LEFT-HAND.

Ground to an even thickness to edge of flange and beveled from there to 14 gauge on the rim.

| Diameter | PRICE. | Diameter. | PRICE. |
| :---: | :---: | :---: | :---: |
| 26 | $\$ 30.00$ | 44 | $\$ 72.00$ |
| 28 | 32.00 | 46 | 85.00 |
| 30 | 34.00 | 48 | $\mathbf{1 0 0 . 0 0}$ |
| 32 | 36.00 | $\mathbf{5 2}$ | $\mathbf{1 1 5 . 0 0}$ |
| 34 | 40.00 | $\mathbf{5 4}$ | $\mathbf{1 3 5 . 0 0}$ |
| 36 | $\mathbf{4 4 . 0 0}$ | $\mathbf{5 6}$ | $\mathbf{1 5 5 . 0 0}$ |
| 38 | $\mathbf{5 0 . 0 0}$ | $\mathbf{5 8}$ | 175.00 |
| 40 | $\mathbf{6 0 . 0 0}$ | $\mathbf{6 0}$ | $\mathbf{1 9 5 . 0 0}$ |
| 42 |  | $\mathbf{2 1 5 . 0 0}$ |  |

When ordering a Shingle or Heading Saw, please be careful to give the following information:

Diameter.
Gauge or thickness on Rim, also at Centre.
Name of the machine it is for, and whether right-hand or left-hand.
Speed.
State if you desire a special number of teeth.
If possible, send the old flange and screws, so that the saw may be properly fitted to it. If this is not possible, make a full-sized paper impression or paper templet of the flange, and send a sample of each size screw used.

Show on the paper templet the countersunk side of saw; also the direction in which the teeth run.

Price for Fitting Saw to Flange, $\$ 2.50$, net.
When speed is not given, all saws will be hammered for regular speed.

## SEND FOR DISCOUNTS.

## R. HOE \& COI'S SAW CATALOGUE.

Re-Sawing or Siding Saws

| Diameter, Inches. | Gauge. | PRICE. | Diameter, Inches. | Gauge. | PRICE. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 16 | $13 \times 17$ | \$10.00 | 28 | $9 \times 13$ | \$23.00 |
| 16 | $12 \times 16$ | 10.50 | 28 | $9 \times 14$ | 23.75 |
| 16 | $11 \times 15$ | 11.00 | 28 | $8 \times 13$ | 24.50 |
| 18 | $12 \times 16$ | 12.00 | 30 | $9 \times 13$ | 26.50 |
| 18 | $11 \times 15$ | 12.50 | 30 | $9 \times 14$ | 27.00 |
| 18 | $12 \times 17$ | 13.00 | 30 | $8 \times 13$ | 27.75 |
| 20 | $12 \times 16$ | 14.00 | 32 | $9 \times 13$ | 29.00 |
| 20 | $11 \times 15$ | 14.50 | 32 | $9 \times 14$ | 29.50 |
| 20 | $12 \times 17$ | 15.00 | 32 | $8 \times 13$ | 30.00 |
| 22 | $11 \times 15$ | 16.00 | 34 | $9 \times 13$ | 32.00 |
| 22 | $10 \times 14$ | 16.50 | 34 | $8 \times 13$ | 32.75 |
| 22 | $11 \times 16$ | 17.00 | 34 | $8 \times 14$ | 34.00 |
| 24 | $10 \times 14$ | 18.00 | 36 | $8 \times 13$ | 36.50 |
| 24 | $9 \times 13$ | 18.50 | 36 | $8 \times 14$ | 38.00 |
| 24 | $10 \times 15$ | 19.00 | 36 | $7 \times 14$ | 41.00 |
| 26 | $10 \times 14$ | 20.00 | 38 | $8 \times 12$ | 42.00 |
| 26 | $9 \times 13$ | 20.50 | 38 | $8 \times 13$ | 42.50 |
| 26 | $10 \times 15$ | 21.00 | 38 | $7 \times 13$ | 44.00 |

When fitted to flange an additional charge will be made, varying according to the diameter of saw and the style of flange.

## Metal Saws

| Diameter, <br> Inches. | PRICE. | Diameter, <br> Inches. | PRICE. |
| :---: | :---: | :---: | :---: |
| 4 | $\$ 2.40$ | 10 | $\$ 6.40$ |
| 5 | 3.00 | 12 | 7.40 |
| 6 | 3.60 | 14 | 9.00 |
| 7 | 4.20 | 16 | 10.50 |
| 8 | 4.80 | 18 | 12.50 |
| 9 | 5.60 | 20 | 15.00 |

Circular Saws for Slate, Horn or Ivory made to order; also Saws for Railroad Iron.

Circular Knives and Cutters of all descriptions made to order.
Circular Saws for Cutting Grooves.
Electrotypers' and Photo-Engravers' Saws a specialty.

## Repairing Solid-Tooth Circular Saws

| Diameter. | Hammering. | Re-Grinding, per Gauge. | Gumming and Hammering. | Re-Toothing and Hammering. |
| :---: | :---: | :---: | :---: | :---: |
| 6 | \$0.40 | \$0.60 | \$1.00 | \$ 1.20 |
| 8 | . 45 | . 70 | 1.10 | 1.40 |
| 10 | . 50 | . 80 | 1.20 | 1.60 |
| 12 | . 60 | . 90 | 1.30 | 1.80 |
| 14 | . 70 | 1.00 | 1.40 | 2.10 |
| 16 | . 80 | 1.15 | 1.50 | 2.50 |
| 18 | . 95 | 1.35 | 1.70 | 3.00 |
| 20 | 1.10 | 1.55 | 1.90 | 3.50 |
| 22 | 1.25 | 1.75 | 2.20 | 4.00 |
| 24 | 1.50 | 1.95 | 2.50 | 4.50 |
| 26 | 1.75 | 2.15 | 2.80 | 5.00 |
| 28 | 2.00 | 2.35 | 3.10 | 5.50 |
| 30 | 2.25 | 2.55 | 3.50 | 6.00 |
| 32 | 2.50 | 2.80 | 4.00 | 6.50 |
| 34 | 3.00 | 3.10 | 4.50 | 7.10 |
| 36 | 3.50 | 3.35 | 5.00 | 7.70 |
| 38 | 4.00 | 3.65 | 6.00 | 8.20 |
| 40 | 4.50 | 3.80 | 7.00 | 8.70 |
| 42 | 5.00 | 4.00 | 8.00 | 9.25 |
| 44 | 5.50 | 4.30 | 9.00 | 10.00 |
| 46 | 6.00 | 4.70 | 10.00 | 11.00 |
| 48 | 6.50 | 5.10 | 11.00 | 12.00 |
| 50 | 7.00 | 5.50 | 12.00 | 13.00 |
| 52 | 8.00 | 6.00 | 13.00 | 14.50 |
| 54 | 9.00 | 6.75 | 14.00 | 16.00 |
| 56 | 10.00 | 7.40 | 15.00 | 17.50 |
| 58 | 11.00 | 8.05 | 16.00 | 19.00 |
| 60 | 12.00 | 8.90 | 17.00 | 20.00 |
| 62 | 13.50 | 9.70 | 18.00 | 21.00 |
| 64 | 15.00 | 10.50 | 19.00 | 22.00 |
| 66 | 16.50 | 11.35 | 21.00 | 24.00 |
| 68 | 18.00 | 12.10 | 23.00 | 26.00 |
| 70 | 20.00 | 12.95 | 26.00 | 25.00 |
| 72 | 22.00 | 13.75 | 29.00 | 31.50 |
| 74 | 26.00 | 15.00 | 32.00 | 35.00 |
| 76 | 30.00 | 16.50 | 36.00 | 38.50 |

When saw is to be ground, add price for hammering to price of grinding.
All breakage at risk of owner.

Duplex Swage or Upset

No. 1, for Swaging Saws 10 gauge and thicker


## Saw Set for Bending the Points of Teeth of Solid Saws



[^0]
## R. HOE \& CO.'S SAW CATALOGUE.

Wrenches for Inserting and Removing Bits

## in Chisel-Tooth Saws

Shows our Latest Improved Chisel-Bit Wrench, which supports the pins on both sides, and so prevents their being shorn off or slipping.
Wrenches. Price.
For No. 2 Pattern Saws ..... $\$ 0.60$ each.
" No. 21/2 " " ..... 60
" No. 3 ..... 70
" No. 4 ..... 80
Old Style Wrench for No. 1 Pattern Saws. ..... 40 ..... "
" " " "No. 5 " " ..... 80 """"
Special Files for Chisel-Tooth Saws
$\square$
FULL-SIZED END VIEW OF FILE No. 1
8 inches long, price per dozen ..... $\$ 5.50$
9 ..... 6.30
FULL-SIZED END VIEW OF FILE No. 2
8 inches long, price per dozen ..... $\$ 5.40$
9 " " " " " ..... 5.75
FULL-SIZED END VIEW OF FILE No. 3
8 inches long, price per dozen ..... \$4.10
9 ..... 4.90
$\qquad$

```
R. HOE & CO.'S SAIV CATALOGUE.
```


## Stubb's Standard Wire Gauge



Please Order your
Saws by this Gauge.


| No. 15 | " scant. |
| :---: | :---: |
| No. 16 | " full. |
| No. 17 | " scant. |
| No. 18 | " full. |
| No. 19 | " scant. |
| No. 20 | " full. |
| No. 21 | " " |
| No. 22 | " scant. |
| No. 23 | " " |
| No. 24 | " |
| No. 25 | " full. |
| No. 26 | " |

## R. HOE \& CO.'S SAW CATAlogue.

## R. Hoe \& Co.'s Telographic Cypher Code for Use in Ordering Saws.

The following example will show how to order a Chisel-Tooth Saw by telegraph: When can you ship 56 -inch saw, 6 gauge at centre, 7 gauge on rim, with 40 No. 3 teeth. It is to have a 2 -inch centre hole and two $5 / 8$-inch pin holes on a 3 -inch circle; right-hand; and to run 650 revolutions per minute on a $31 / 2$-inch feed.

The code words for the above are as follows: Wisdom, Camera, Halberd, Day, Pagan, Standard, Hamlet, Effect, Beacon.

## TELEGRAPHIC CODE

When can you ship
.Wisdom.
What is the price of a
Welfare.

## DIAMETER OF SAW

|  | che | iam | Cabin. | 42 | inche | iam |  | Captain. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | " | " | Cabalist. | 44 | " | " |  | Caloric. |
| 12 | " | " | Cab. | 46 | " | " |  | Calumet. |
| 14 | " | " | Cabinet. | 48 | " | " |  | Caloist. |
| 16 | " | " | Cackler. | 50 | " | " |  | Careful. |
| 18 | " | " | Cadence. | 52 | " | " |  | Cambric. |
| 20 | " | " | Cajolery. | 54 | " | " |  | Cargo. |
| 22 | " | " | Calcine. | 56 | " | " |  | Camera. |
| 24 | " | " | Calculus. | 58 | " | " |  | Campaign |
| 26 | " | " | Camel. | 60 | " | " |  | Cancer. |
| 28 | " | " | Caldron. | 62 | " | " |  | Canine. |
| 30 | " | " | Calender. | 64 | " | " |  | Canopy. |
| 32 | " | " | Calidity. | 66 | " | " |  | Cutlet. |
| 34 | " | " | Caliph. | 68 | " | " |  | Capulet. |
| 36 | " | " | Calipers. | 70 | " | " |  | Carpet. |
| 38 | " | " | Callons. | 72 | " | " |  | Concrete. |
| 40 | " | " | Calm. |  |  |  |  |  |

## GAUGE



```
R.HOE & COI'S SAW CATALOGUE.
```


## NUMBER OF TEETH



## SIZE OF MANDREL HOLES



## CIRCLE PINHOLES ARE ON

Pinholes are 3 inches from centre to centre .................... . . Gain.


2 -inch centre hole and two $5 / 8$-inch pin holes on a 3 -inch circle. .... Standard.

```
R. HOE & CO.'S SAW CATALOGUE
```

CIRCLE PINHOLES ARE ON


## REVOLUTION OF SAW PER MINUTE

| 400 | olutions | Earl. |
| :---: | :---: | :---: |
| 425 | " | Each. |
| 450 | " | . Earnest. |
| 475 | " | . Earth. |
| 500 | " | . Eagerly. |
| 525 | " | Ease. |
| 550 | " | Earthquake. |
| 575 | " | East. |
| 600 | " | .Economy. |
| 625 | " | Easy. |
| 650 | " | . Effect. |
| 675 | " | . Eat. |


| 700 | olutions | Effeminate. |
| :---: | :---: | :---: |
| 725 | " | . Eaves. |
| 750 | " | . Embark. |
| 775 | " | Egg. |
| 800 | " | . Effigy. |
| 825 | " | . Elapse. |
| 850 | " | Egotist. |
| 875 | " | Elate. |
| 900 | " | . Eject. |
| 950 | " | Elk. |
| 1000 | " | Elbow. |

FEED PER REVOLUTION


## HAND OF SAW

Right Hand. . . . . . . . . . . . Hamlet. Even Hand. . . . . . . . . . . . . Heathen.
Left Hand. . . . . . . . . . . . . . Hazzard.

## SIZE OR KIND OF TOOTH



Solid Tooth. . . . . . . . . . . Panic.

## FOR SHIPPING

Send by Express......... Safeguard. I Send by Freight.......... . . Seafarer.
Send by Mail. . . . . . . . . . . . Sensible.
Also use the following Codes:
Western Union Universal. A. B. C., 5th Edition. Lieber's Standard.

```
R. HOE & CO.'S SAW CATALOGUE.
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THE PRESS AND SAW DEPARTMENTS ARE MANAGED AND RUN INDEPEN= DENTLY OF ONE ANOTHER, BUT THE SKILL AND BRAINS THAT HAVE MADE IT POSSIBLE TO PERFECT THE WON= DERFUL PRESS SHOWN ON THE FOLLOWING PAGE ARE ALWAYS AT THE SERVICE OF THE SAW DEPART= MENT, AND THIS ASSISTANCE HAS HELPED TO MAKE AND TO KEEP THE "HOE" CHISEL=TOOTH SAW THE SUPE= RIOR OF ANY OTHER MANUFACTURED.
R. Hoe \& Co.'s Double Octuple Newspaper Perfecting Press

This press has a capacity equivalent to 200,0008 -page papers per hour, and will produce, at proportionate speeds, complete papers of any number of pages up to 32 , delivering them folded, cut, pasted and counted. It will also print in colors when desired.

## R.HOE \& CO.

MAKE THE GENUINE

## $\sqrt{C H I S E L}$




## ORDER BLANK.

When ordering Circular Saws please fill up the following; tear it off at perforations and mail to K. HOF \& CO., 504-520 Grand Street, New York, N. Y., U. S. A.

Please send. saw (s), as follows:

1. Whether Chisel-Tooth or Solid.
2. Diameter.
3. Number of Teeth
4. Size of teeth (whether No. 1, 2, 21/2, 3, 4 or 5 ).
5. Gauge, or thickness, at hole (see page 35 of catalogue)
6. Gauge, or thickness, at rim (see page 35 of catalogue)
7. Diameter of centre hole
8. Diameter of pin holes
9. Distance pin holes are apart, measured between their centres
10. When standing in front of the saw, cutting towards you, ?
which is the log side? (Sce above illustration.)
11. Revolutions per minute out of cut
12. Revolutions per minute in the cut
13. Greatest feed at each revolution.
14. Kinds of timber to be sawed.
15. Horse power available
16. Dues mandrel run cold, warm or hot?

Remar!

Signature
Post Office Address.

Ship by Freight (or Express) $\}$
Dated.
Send also a templet of the holes by placing a piece of paper and holding it tightly on the loose collar or flange and pressing it around the holes with the finger.

The mandrel holes in our large circular saws are all made 2 inches in diameter. The pin holes are $5 / 8$ inch in diameter, and are placed 3 inches apart from centre to centre, unless otherwise ordered, and we recommend this as a standard size. It is important that the mandrel hole be made exactly right, and it should not be altered after the saw leaves our works.


## ORDER BLANK.

When ordering Circular Saws please fill up the following; tear it off at perforations and mail to R. HOE \& CO., 504-520 Grand Street, New York, N. Y., U. S. A.

Please send .saw (s), as follows:

1. Whether Chisel-Tooth or Solid
2. Diameter.
3. Number of Teeth
4. Size of teeth (whether No. 1, 2, $21 / 2,3,4$ or 5 ).
5. Gauge, or thickness, at hole (see page 35 of catalogue).
6. Gauge, or thickness, at rim (see page 35 of catalogue).
7. Diameter of centre hole
8. Diameter of pin holes
9. Distance pin holes are apart, measured between their centres.
10. When standing in front of the saw, cutting towards you, ?
which is the $\log$ side? (Sce above illustration.) ,
11. Revolutions per minute out of cut
12. Revolutions per minute in the cut.
13. Greatest feed at each revolution
14. Kinds of timber to be sawed
15. Horse power available
16. Does mandrel run cold, warm or hot? $\qquad$
Remarks.

Signature
Post Office Address.
Ship by Freight \}
(or Express) $\}$
Dated.
Send also a templet of the holes by placing a piece of paper and holding it tightly on the loose collar or fange and pressing it around the holes with the finger.
The mandrel holes in our large circular saws are all made 2 inches in diameter. The pin holes are $5 / 8$ inch in diameter, and are placed 3 inches apart from centre to centre, unless otherwise ordered, and we recommend this as a standard size. It is important that the mandrel hole be made exactly right, and it should not be altered after the saw leaves our works.




[^0]:    No. 1, for Saws 11 gauge and thicker.
    . 2.25 each.
    No. 2, " " 12 " " thinner 2.00 " SEND FOR DISCOUNTS.

